

Minutes, 9/22/04 Tevatron BPM Upgrade Meeting  
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The agenda as announced consisted of:

1. Report from Bob and Steve
2. Report from subproject leaders
3. Report from Technical Coordinator -- Jim Steimel
4. AOB

1. Report from Bob and Steve.

- Tuesday's CD Accelerator Activities Meeting feedback:

- = CD mgmt wants to know how we know that the project is over and can be handed over to operations.

- = There were discussions of how we know that the data is useful and that the users and accelerator experts can make progress with the increased resolution/precision, reliability and capabilities of the new system.

- = Some discussion of long-term support, how to estimate.

- = Discussion of the MI BPM project, how much it will take to actually do the project and how much and what type of support CD can provide.

- Wednesday afternoon Steve and Jim will report to the Run 2 upgrade project the status of the shutdown activities for the TeV BPM project.

3. Reports from L2 Managers

Vince Pavlicek:

- Some of the cables are arriving. All label text is agreed to and the labelled cables should start arriving soon.

- The first 2 VME subrack upgrade parts have not yet arrived.

- The timing card has not hardware changes. Getting quotes for remaining parts and assembly, including timescales. Before everyone was

willing to sign off on production questions were asked about TCLK decoding, interrupts, multiple Echotek support, etc. After all the discussion was over everyone signed and the board is ready to proceed to production.

- There are 4 timing boards assembled plus a half-board for Nathan Eddy. The final board will be assembled soon.

- The filter board testing to confirm the design is done. Closer to having the documents and test results for people to look at and evaluate in order to prepare for final approval for production of 150 boards. Vince showed some plots of cross-talk through relays and everything looked reasonable.

- The filters continue to arrive. So far 227 pairs are at Fermilab and 100 additional pair are expected Thursday.

Brian Hendricks:

- Charlie is waiting to hear from DAWN about the http support for the VME crate.

- Working on changes needed to support the new system as it is mixed in with the old system. Steve asked about the possibility of testing before the beam arrives with a teststand loaded with Echotek boards and test signals of various types. Sounds like something that could be done.

- Would like to test TBT data as soon as it is available.

Tim Kasza:

- Stew is receiving parts for the filter board.

- Tom Boes will be sample testing the filters very soon. Expecting to test 5-10% of all filters. Steve asked that a summary of the testing be shown at the Wednesday meeting.

- 28 PMC cards from Craig have been received. Tim asked about testing them. He will talk to Craig to determine what might be done.

- A test stand for Echotek testing has been set up. Tim asked about possible changes to the testing. It is thought that the data should be collected in such a way that it can be analyzed later. Tim will look into it. Steve asked that weekly reports on the Echotek testing also be given.

- Bob asked that some small number of filters be "roasted" at about 150 degrees F and then cooled and tested to see if the response of the filter changes. There was some discussion about whether 150 or some other temp was appropriate. In any case the test will be done.

Margaret Votava:

- Long discussion and description of timing studies on the readout. 500 Hz for one board has been achieved but it isn't consistent nor is it good enough for multiple boards in a crate. Work continues to characterize the time that goes into each read and to reduce many of the individual components times.

- During the investigation bus errors and other problems have occurred. Workarounds and changes have helped to reduce some of the problems. Others are still under investigation and may need help from Bill Haynes and others.

### 3. Technical Coordinator -- Jim Steimel

- Working with CDF on the B0 BPM connections. It is possible to connect cables to the pbar ends in the tunnel once good access is available in October. Bob recommends working safely, given the elevated height of the connectors.

- The test stand is now operational. Some problem with diagnostics and Jim will work with Luciano to get it working.

- Space in the test stand area in FCC3 is something that needs to be discussed. Jim will convene a small group to have a look at the situation.

### 4. AOB.

- Meeting Thursday 9/23/04 to discuss Echotek configuration and readout.